Message

From: Lindstrom, Andrew [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=04BF7CF26AA44CE29763FBC1C1B2338E-LINDSTROM, ANDREW]
Sent: 1/10/2018 2:55:51 PM
To: Jones, Aaryn [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c2bed08a5bd54dc5a9d59c5a345c9892-Jones, Aaryn]
Subject: RE: HFPO DuPont publication

Aaryn,

We have been talking about this a lot and we think this is very important.

We're thinking that the dimer acid fluoride is likely to be a major source of GenX around the plant.

From what I can see, fluoride is a major constituent of their waste streams so this mechanism (and others related to it) will be very important.

There's a lot of complex chemistry going on here so we'd appreciate any thoughts or comments you may have as you review data.

Thank you very much,

Andy

From: Jones, Aaryn
Sent: Tuesday, January 2, 2018 4:20 PM
To: Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>
Subject: RE: HFPO DuPont publication

Hi Andy,

Hope you had a good holiday! Quick question…

Are folks at RTP still looking into potential HFPO air chemistry? I found this reaction scheme last week and it seems like HFPO can dimerize in the presence of fluoride anion (I was surprised that fluoride anion could be the "catalyst") and form HFPO Dimer Acid Fluoride, which then could potentially hydrolize into the GenX acid. And that hydrolysis step, if it occurred, would generate additional fluoride anion that could potentially keep the whole thing going in an excess of HFPO.

I was just poking around on the internet to see if there were any intermediates or catalysts in these potential air reactions that aren't gasses that the state could be looking for in soil/groundwater under the state RCRA permit investigations. I found it interesting that the fluoride anion itself could be enough to catalyze the dimerization. Just curious if RTP had reached a similar conclusion regarding HPFO air chem? Thanks,

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jones.aaryn@epa.gov

From: Lindstrom, Andrew
Sent: Monday, November 27, 2017 7:55 AM
To: Jones, Aaryn <Jones.Aaryn@epa.gov>; Strynar, Mark <Strynar.Mark@epa.gov>; Buckley, Timothy <Buckley.Timothy@epa.gov>
Subject: RE: HFPO DuPont publication

Aaryn,

Thank you very much for thinking about this. We have been looking at this information sheet on HFPO and have been considering the implications. The most interesting of which to me is the widespread use of HFPO as a basic building block in the PFAS synthesis process.

We've been thinking that any place that HFPO is produced or used could have GenX or other related reaction products present. Our recent experience in Fayetteville suggests that HFPO is routinely released and likely to contribute to a range of PFAS contaminants found in the ground and surface water of this region.

It would be helpful to get an inventory of all sites known to use or produce hexafluoropropylene (HFP) and HFPO to sketch out where GenX contamination might be anticipated.

Thank you very much,

Andy

From: Jones, Aaryn
Sent: Wednesday, November 22, 2017 1:13 PM
To: Strynar, Mark <Strynar.Mark@epa.gov>; Buckley, Timothy <Buckley.Timothy@epa.gov>; Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>
Subject: HFPO DuPont publication

Hi all,

I was on the Cape Fear Partnership call yesterday and heard towards the end that RTP is going to be looking into potential HFPO transformations in the atmosphere. I ran across this a few weeks ago, you probably already have it, but just in case you don't – it's a DuPont publication on HFPO uses, basic chemical reactions, and storage concerns ("readily" transforms into hexafluoroacetone in presence of Lewis acids). It might be a good starting point for considering the environmental fate of HFPO. Apologies if you've already come across it!

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